

AMENDMENTS TO THE CLAIMS:

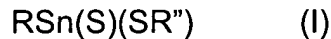
This listing of claims will replace all prior versions, and listings, of claims in the application.

1-348 (Canceled)

349. (Currently Amended) A method of stabilizing a vinyl halide resin comprising the steps of:

adding to the vinyl halide resin

(a) a metal containing stabilizer corresponding to formula I



in which,

R represents an alkyl group, and

SR" represents a mercaptide ligand; and

(b) a mercapto alkanol ester of a carboxylic acid which is added to said resin in an amount from about 2 to 25 times the amount of the Sn in said metal containing stabilizer,

wherein said mercapto alkanol ester of a carboxylic acid has the formula:



where R^a is a linear or branched alkyl or alkenyl, aryl or aralkyl; and

R^b represents a C₂ to C₁₈ alkylene, and replaces from about 20% to about 90% by weight of the metal containing stabilizer and wherein said composition has a heat or light stability at least comparable to a composition where said mercapto alkanol ester does not replace about 20% to about 90% by weight of the metal containing stabilizer.

350. (Previously Presented) The method of claim 349, wherein said mercaptide ligand is a derivative of a carboxylic acid, a polycarboxylic acid, a mercaptan, a mercaptoacid, a mercaptoalcohol, a mercaptoacid ester, or a mercaptoalcohol ester.

351. (Previously Presented) The method of claim 349, wherein said mercaptide ligand is an ester of mercaptocarboxylic acid, a 2-mercaptoalkanol ester of a carboxylic acid, a 2-mercaptoalkanol, or an alkyl thiol.

352. Canceled

353. (Previously Presented) The method of claim 349, where the carboxylic acid is at least one chosen from caprylic, pelargonic, capric, undecanoic, lauric, myristic, palmitic, stearic, isostearic, 2-ethylhexanoic, neodecanoic, oleic, or linoleic.

354. (Previously Presented) The method of claim 349, wherein the mercapto alkanol ester of a carboxylic acid is at least one chosen from mercapto ethyl stearate, 3-thio-glyceryl myristate, mercapto ethyl palmitate, mercaptoethyl oleate, or mercapto ethyl myristate.

355. (Previously Presented) The method of claim 349, wherein the mercapto alkanol ester of a carboxylic acid is present in the range of 0.01 % wt. to 5.0 % wt of the vinyl halide resin.

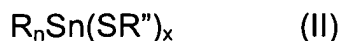
356. (Previously Presented) The method of claim 349, wherein the mercapto alkanol ester of a carboxylic acid is present in the range of 0.1 % wt. to 1.0 % wt. of the vinyl halide resin.

357. (Previously Presented) The method of claim 349, wherein the vinyl halide resin is polyvinyl chloride.

358. (Currently Amended) A method of stabilizing a vinyl halide resin comprising the steps of:

adding to the vinyl halide resin

(a) a metal containing stabilizer of formula II



in which,

R represents an alkyl group

SRⁿ represents a mercaptide ligand

n = 1 or 2, and

x = 4-n, wherein x is an integer; and

(b) a mercapto alkanol ester of a carboxylic acid which is added to said resin in an amount from about 2 to 25 times the amount of the Sn in said metal containing stabilizer,

wherein said mercapto alkanol ester of a carboxylic acid has the formula:



where R^a is a linear or branched alkyl or alkenyl, aryl or aralkyl; and

R^b represents a C₂ to C₁₈ alkylene, and replaces from about 20% to about 90% by weight of the metal containing stabilizer and wherein said composition has a heat or light stability at least comparable to a composition where said mercapto alkanol ester does not replace about 20% to about 90% by weight of the metal containing stabilizer.

359. (Previously Presented) The method of claim 358, wherein said mercaptide ligand is a derivative of a carboxylic acid, a polycarboxylic acid, a mercaptan, a mercaptoacid, a mercaptoalcohol, a mercaptoacid ester, or a mercaptoalcohol ester.

360. (Previously Presented) The method of claim 358, wherein said mercaptide ligand is an ester of mercaptocarboxylic acid, a 2-mercaptoalkanol ester of a carboxylic acid, a 2-mercaptoalkanol, or an alkyl thiol.

361. Canceled

362. (Previously Presented) The method of claim 358, where the carboxylic acid is at least one chosen from caprylic, pelargonic, capric, undecanoic, lauric, myristic, palmitic, stearic, isostearic, 2-ethylhexanoic, neodecanoic, oleic, or linoleic.

363. (Previously Presented) The method of claim 358, wherein the mercapto alkanol ester of a carboxylic acid is at least one chosen from mercapto ethyl stearate, 3-thio-glyceryl myristate, mercapto ethyl palmitate, mercaptoethyl oleate, or mercapto ethyl myristate

364. (Previously Presented) The method of claim 358, wherein the mercapto alkanol ester of a carboxylic acid is present in the range of 0.01 % wt. to 5 % wt. of the vinyl halide resin.

365. (Previously Presented) The method of claim 358, wherein the mercapto alkanol ester of a carboxylic acid is present in the range of 0.1 % wt. to 1.0 % wt. of the vinyl halide resin.

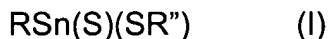
366. (Previously Presented) The method of claim 358, wherein the vinyl halide resin is polyvinyl chloride.

367 - 383. (Canceled)

384. (Currently Amended) ~~A stabilizing composition for a vinyl halide resin~~ A method of stabilizing a vinyl halide resin comprising:
adding to the vinyl halide resin

(a) at least two metal containing stabilizers chosen from formulas I, II, and III, wherein

formula I is:

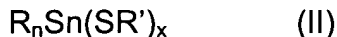


in which,

R represents an alkyl group, and

SR'' represents a mercaptide ligand,

formula II is:



in which,

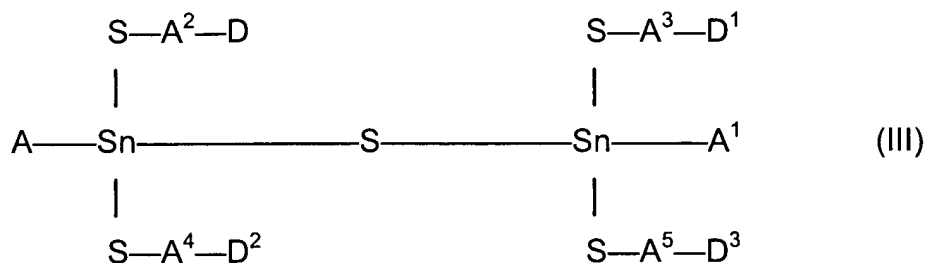
R represents an alkyl group

SRⁿ represents a mercaptide ligand,

n = 1 or 2, and

x = 4-n, wherein x is an integer, and

formula III is:

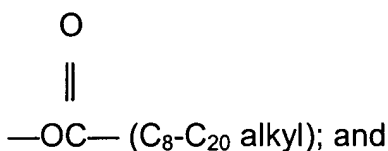


in which,

A and A¹ represent at least one alkyl of 1 to 12 carbon atoms, where A and A¹ can be the same or different;

A², A³, A⁴, and A⁵ represent at least one lower alkylene;

D, D¹, D², and D³ represent at least one of OH; — (C₆-C₁₈ alkyl); or



(b) a mercapto alkanol ester of a carboxylic acid having the formula:



where R^a is a linear or branched alkyl or alkenyl, aryl or aralkyl; and

R^b represents a C₂ to C₁₈ alkylene, and which is present in an amount by weight from about 2 to about 25 times the amount by weight of the Sn in said metal containing stabilizers .

385. (Currently Amended) The composition method of claim 384, where the carboxylic acid is at least one chosen from caprylic, pelargonic, capric, undecanoic, lauric, myristic, palmitic, stearic, isostearic, 2-ethylhexanoic, neodecanoic, oleic, or linoleic.

386. (Currently Amended) The ~~composition~~ method of claim 384, wherein the mercapto alkanol ester of a carboxylic acid is at least one chosen from mercapto ethyl stearate, 3-thio-glyceryl myristate, mercapto ethyl palmitate, mercaptoethyl oleate, or mercapto ethyl myristate.

387. (Currently Amended) The ~~composition~~ method of claim 386, wherein the mercapto alkanol ester of a carboxylic acid is present in the range of 0.01 % wt. to 5 % wt of the vinyl halide resin.

388. (Currently Amended) The ~~composition~~ method of claim 387, wherein the mercapto alkanol ester of a carboxylic acid is present in the range of 0.1 % wt. to 1.0 % wt. of the vinyl halide resin.

389. (Currently Amended) The ~~composition~~ method of claim 388, wherein the vinyl halide resin is polyvinyl chloride.

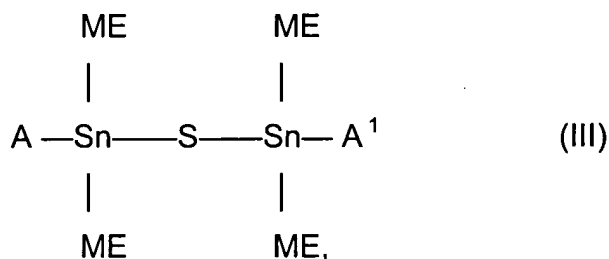
390. (Currently Amended) The ~~composition~~ method of claim 384, where the carboxylic acid comprises at least one natural fatty acid present in peanut oil, tall oil, safflower oil, soybean oil, tallow, lanolin, palm oil, or coconut oil.

391. (Currently Amended) The ~~composition~~ method of claim 384, wherein A and A¹ comprise at least one of methyl, butyl or octyl.

392. (Currently Amended) The ~~composition~~ method of claim 384, wherein at least one of A², A³, A⁴, and A⁵ is ethylene.

393. Canceled

394. (Currently Amended) The ~~composition~~ method of claim 384, wherein said metal containing stabilizer of formula III is:



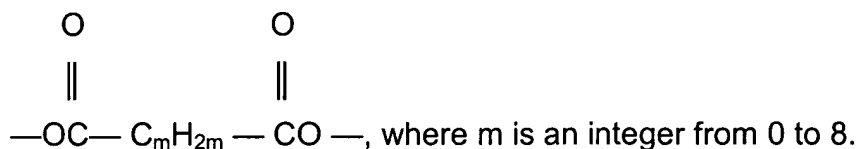
where

A and A¹ represent methyl, butyl or octyl and can be the same or different,
and

ME represents a mercaptoethyl stearate, a mercaptoethyl oleate, or a mercaptoethyl linoleate and can be the same or different.

395. (Currently Amended) The ~~composition~~ method of claim 394, wherein A and A¹ are both butyl and ME is mercaptoethyl oleate.

396. (Currently Amended) The ~~composition~~ method of claim 384, wherein the combination of D and D¹ or the combination of D² and D³ form the group



397. (Currently Amended) The ~~composition~~ method of claim 384, wherein said mercaptide ligand of formulas I and II is a derivative of carboxylic acid, a polycarboxylic acid, a mercaptan, a mercaptoacid, a mercaptoalcohol, a mercaptoacid ester, or a mercaptoalcohol ester.

398. (Currently Amended) The ~~composition~~ method of claim 397, wherein said mercaptide ligand is an ester of mercaptocarboxylic acid, a 2-mercaptoalkanol ester of a carboxylic acid, a 2-mercaptoalkanol, or an alkyl thiol.

399. Canceled

400. (Currently Amended) The ~~composition~~ method of claim 384, where R R^a in formulas I and II contains 6 to 38 carbon atoms.

401. (Currently Amended) The ~~composition~~ method of claim 400, where R R^a contains 8 to 18 carbon atoms.

402. (New) The method of claim 349, where the carboxylic acid comprises at least one natural fatty acid present in peanut oil, tall oil, safflower oil, soybean oil, tallow, lanolin, palm oil, or coconut oil.

403. (New) The method of claim 358, where the carboxylic acid comprises at least one natural fatty acid present in peanut oil, tall oil, safflower oil, soybean oil, tallow, lanolin, palm oil, or coconut oil.